

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

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IN THE MATTER OF:)
)
The Syntrum Corporation)
(f.k.a. California Bionuclear Corporation)) U.S. EPA Docket No.98-04
Riad M. Ahmed, Ph.. D) UNILATERAL ADMINISTRATIVE
Mr. and Mrs Young Nam Cho& Chon Sook Cho) ORDER FOR (PARTIAL)
) PERFORMANCE OF REMOVAL
) ACTION
Proceeding Under Section 106(a))
of the Comprehensive Environmental)
Response, Compensation, and)
Liability Act of 1980,)
42 U.S.C. § 9606(a)).)
)

I. AUTHORITY

This Unilateral Administrative Order ("Order") is issued pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §9606(a), as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA"). The President delegated this authority to the Administrator of the United States Environmental Protection Agency ("EPA" or "Agency") by Executive Order 12580, January 23, 1987, 52 Fed. Reg. 2923, and further delegated it to the Assistant Administrator for Solid Waste and Emergency Response and the Regional Administrators by EPA Delegation Nos. 14-8-A and 14-14-C. This authority has been redelegated to the Director, Hazardous Waste Division, EPA, Region 9 ("Director") by Region 9 Delegations 1290.41 and

II. PARTIES BOUND

1. This Order shall apply to and be binding upon the Syntrum Corporation (formerly known as the California Bionuclear Corporation), Riad M. Ahmed, Ph.D., Young Nam Cho, and Chon Sook Cho (collectively "Respondents"), and their agents, successors and assigns. No change in ownership or operational status will alter Respondents' obligations under this Order. Notwithstanding the terms of any contract or agreement, Respondents are each responsible for compliance with this Order and for ensuring that their employees, contractors, and agents comply with this Order. Respondents shall provide a copy of this Order to all contractors, subcontractors, and consultants which are retained by Respondents to perform the work required by this Order within five (5) days after the Effective Date of this Order or within five (5) days of retaining their services, whichever is sooner.

2. Respondents may not convey any title, easement, or other interest they may have, either individually or collectively, in any property comprising the Site, as the term "Site" is defined below, without a provision permitting the continuous implementation of the provisions of this Order. Any Respondent wishing to transfer any title, easement, or other interest it may have in any property comprising the Site shall

provide a copy of this Order to any subsequent owner(s) or successor(s) before any ownership rights are transferred. Any such Respondent shall advise EPA six (6) months in advance of any anticipated transfer of interest.

III. DEFINITIONS

3. Unless otherwise expressly provided herein or in the Definitions in exhibit "A" attached hereto, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever the terms listed below are used in this Order, or in the Exhibits attached hereto and incorporated hereunder, the following definitions shall apply:

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments & Reauthorization Act of 1986, 42 U.S.C. § 9601 et seq.

"Unilateral Order" or "Order" shall mean this Unilateral Administrative Order, EPA docket number 98-04, and all exhibits attached hereto. In the event of a conflict between this Unilateral Order and any exhibit, this Unilateral Order shall control.

"EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

"National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300.

"Response actions" shall be those specific work items each Respondent is required to perform at the Site pursuant to this Unilateral Order, as set forth in exhibit "B".

"Respondents" shall mean the Syntrum Corporation (formerly known as the California Bionuclear Corporation), Riad M. Ahmed, Ph.D., Young Nam Cho, and Chon Sook Cho, both individually and collectively.

"State" shall mean the State of California, and all of its political subdivisions, including the California Department of Toxic Substances Control ("DTSC").

"United States" shall mean the United States of America.

IV. FINDINGS OF FACT

4. The Syntrum Corporation site is located at 13125 South Broadway, in an unincorporated part of Los Angeles County, California (referred to hereinafter as the "Site" or "CBC/Syntrum" site). The Site occupies approximately 1.1 acres in a light industrial/warehousing area, with approximately 45 businesses located within one a mile radius of the site.

5. The Syntrum Corporation ("Syntrum") or its corporate predecessor, the California Bionuclear Corporation, ("CBC") (referred to collectively as "CBC/Syntrum") operated a chemical research, development, and manufacturing laboratory at the Site that incorporated carbon-14 into organic compounds. Carbon-14 is a pure beta particle emitting radionuclide used in chemical research as a "tag" for observing the progress of a chemical reaction and evaluating the end results of the reaction. Other research and developing activities which occurred at the CBC/Syntrum facility involved experimental organic synthesis and viral drug synthesis research. CBC/Syntrum has operated at the Site since approximately 1987, when CBC/Syntrum's license to handle radioactive materials was approved by the California Department of Health Services Radiation Management.

6. CBC/Syntrum leased space in a building complex consisting of four adjoining structural units constructed of concrete. Three other businesses share this same building complex with CBC/Syntrum. They are:

a. **South Bay Packers, Inc.**, 13121 South Broadway, Los Angeles, CA 90061: South Bay Packers is a corrugated plastic container fabrication facility. South Bay Packers leases approximately 4500 sq. ft. of floor space from by Nova Construction, and employs approximately 3 people.

b. **Mr. Carlos Avila's Garment Cutting Service**, 13119 South Broadway, Los Angeles, CA 9006: This facility leases approximately 4500 sq. ft. of floor space by Nova Construction, and employs approximately 6 persons.

c. **Kleen Idea Corporation**, 325 West 132nd Street, Los Angeles, CA 9006: Kleen Idea Corporation is dye and finishing shop. Kleen Idea leases approximately 13,530 sq. ft. of floor space from Nova Construction, and employs approximately 4 persons.

7. The CBC/Syntnum facility is comprised of a laboratory and several different storage chemical areas. The laboratory itself contains numerous fume hoods and a carbon-14 contaminated materials area. A chemical storage area exists at the facility containing thousands of chemical containers, and a covered patio area at the rear of the facility contains additional drums. Chemicals are also stored in haphazard fashion in multiple wood shelves, filing cabinets, flammable-proof storage cabinets, and utility cabinets located randomly throughout the facility. The facility has a common courtyard area where CBC/Syntnum formerly kept its refuse dumpster.

8. On September 17, 1997, the EPA START contractor conducted an assessment of the Site at the request of the California Department of Health Services Radiation Health Branch ("DHSRHB"). During this assessment it was determined that

thousands of chemical containers were present at the facility, most of which were improperly stored. Sampling of the laboratory ventilation system revealed the presence of radioactive contamination in excess of established guidelines for carbon-14.

9. On October 8, 1997, the EPA Superfund Technical Support Team, in conjunction with DHSRHB, performed a radiological assessment of the dumpster located in the common courtyard area at the Site. Chemical residue, laboratory glassware, and radioactive chemicals were present in the dumpster at that time. The EPA START contractor collected two samples from the dumpster which exceeded the State Total Threshold Limit Concentration for mercury and arsenic. EPA has determined that the CBC/Syntrum dumpster contains mixed hazardous and radioactive wastes, along with other contaminated debris. The residue in the dumpster read 8,000 counts per minute ("cpm"), with one reading being as high as 88,648 cpm (typical background cpm is 42).

10. The dumpster has been moved to a locked, secured area within the Kleen Idea Corporation facility, awaiting disposition by the Los Angeles County District Attorney. Therefore, transport and disposal of this container and its contents is not included in this order at this time. This order may be amended to be included in these items at a future date.

11. From approximately 1987 to 1997, Dr. Riad M. Ahmed, Ph.D., as President and Principal Scientist at CBC/Syntrum,

operated or directed the operations at CBC/Syntrum, including the use of carbon-14, during the chemical research and development that took place as part of CBC/Syntrum's operations. As a by-product of CBC/Syntrum's operations, carbon-14 contaminated waste were generated and disposed of about the Site by Dr. Ahmed.

12. From approximately 1987 to 1997, CBC/Syntrum operated a chemical research and development facility at the Site that generated radioactive waste and hazardous substances as part of its operations. These wastes were disposed of by CBC/Syntrum about the Site, including in the dumpster referred to paragraphs 8 and 9 above.

13. From February 5, 1990, to approximately July 11, 1997, the Respondents Young Nam Cho and Chon Sook Cho, owned the property which comprises the Site (as husband and wife as joint tenants). During their time of ownership, hazardous substances and radioactive wastes were disposed of at and about the Site. The Site has been owned by Nova Construction since approximately July 11, 1997, as a result of a foreclosure action against Mr. and Mrs. Cho.

14. On August 16, 1997, a fire and explosion occurred at CBC/Syntrum's facility. The Los Angeles County Fire Department (the "LAFD") responded and discovered that the building fire sprinklers had flooded the facility, resulting in the migration of carbon-14 contaminated runoff into the streets. Unsafe

conditions resulting from the facility fire and the water damage prompted the LAFD to "Red Tag" the facility, thereby disallowing further business operations at the facility other than approved cleanup activities.

15. On September 10, 1997, EPA On-Scene Coordinator ("OSC"), William Lewis, tasked the Superfund Technical Assessment and Response Team ("START") to collect historical information regarding CBC/Syntrum and to perform an environmental site assessment. The conditions at the Site were evaluated using the criteria established in the National Contingency Plan ("NCP"). Numerous chemicals identified at the Site, including but not limited to carbon-14 radionuclides, were determined to be "hazardous substances" as defined by section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and 40 C.F.R. Section 302.4 and Table 302.4.

16. Results of this site assessment established the presence of chemical substances falling into the following Department of Transportation hazard classes: a) radioactive sources; b) oxidizers; c) corrosives; d) poisons; e) flammable liquids; f) water reactives; g) air reactives; and h) flammable solids.

17. During the site assessment, START noted that many of the chemical containers are present at the Site were in deteriorating condition and subject to leaking. Many of the

containers were improperly stored, some simply in alphabetical order, without consideration for their compatibility with other chemicals or the potentially catastrophic interactions which could result occur if their contents came into contact with each other. Some of the containers are over a decade old, having been salvaged by Dr. Ahmed as "usable laboratory reagents" from the original CBC/Syntrum facility located in Sun Valley, California, that was destroyed by fire in 1986.

18. Carbon-14 is a natural element and is a pure beta-emitter radionuclide, with a radioactive half life of 5,760 years, and a biological half-life of approximately 40 days. Radioactive carbon-14 is a potential health hazard to humans if ingested or inhaled. Carbon-14 has been identified in CERCLA as a Group A carcinogen (a known cancer-producing substance). Carbon-14 can concentrate in bone tissues and can cause disruption of blood production, and is believed to be capable of causing leukemia. External and internal radiation by carbon-14 has also been known to induce, or help to induce, various malignant processes of other organs and tissues of the body, including carcinoma of skin, lung, and other subcutaneous tissue, and sarcoma of skeletal tissues. Carbon-14 may cause physical harm simply by injuring living cells with its radiation emissions. Carbon-14 is also potentially capable of causing genetic damage in humans, as it is believed that carbon-14 can be

incorporated into the body as a part of an organic molecule, and thereafter become incorporated into the body's most basic genetic material, deoxyribonucleic acid ("DNA"). Lastly, carbon-14, through transmutation-by-decay, can transform into nitrogen, which can itself can cause damage to living cells upon its arrival at the former carbon-14 chemical site.

19. Threats to public health or welfare or the environment presented by the conditions at the Site include the threat of a fire or explosion ignited due to a spontaneous chemical reaction between improperly stored chemicals at the Site. Many of the containers at the Site are in deteriorating condition, contain various hazardous substances, including flammables, oxidizers, and incompatible chemicals, and are stored in close proximity to each other. Further, the Respondent, Dr. Ahmed, visits this facility intermittently, thereby increasing the potential for an unmitigated release of the materials present at the Site. Should another fire and explosion occur, a release of radioactive contamination in the form of carbon-14 may occur across a wide area, contaminating surface soils and the atmosphere, and potentially resulting in the direct exposure of radioactive materials to humans.

20. EPA previously issued a Unilateral Administrative Order ("UAO" Docket No. 86-09) to Dr. Ahmed, CBC, and others on September 9, 1986, pertaining to CBC's operations at its original

facility located at the 7654 San Fernando Road, Sun Valley, California ("Sun Valley" facility). UAO 86-09 ordered the Respondents to conduct a removal action at CBC's Sun Valley facility. The issuance of UAO 86-09 was prompted by a 1985 and a 1986 LAFD fire inspection which documented substandard electrical wiring and improper storage of flammable, incompatible, oxidizing, reactive, and radioactive materials at the facility. A subsequent investigation by the Los Angeles Health Department, conducted under a Los Angeles Municipal Court Search Warrant, documented radiation levels in violation of Title 17 of the California Administrative Sections 30289 and 30268.

21. In December 1986, part way through their EPA ordered removal action, Dr. Ahmed and Mr. Vereuk (the Sun Valley facility property owner) claimed they were financially incapable of completing the removal action. On January 29, 1987 EPA took over the response action using CERCLA funds. Prior to stopping work, Dr. Ahmed segregated the "usable laboratory reagents" from the waste chemicals at the Sun Valley facility and moved these "usable laboratory reagents" to the present CBC/Syntnum facility at 13125 South Broadway, Los Angeles County. Some of these "usable laboratory reagents" are the subjects and objects of this Order.

22. On June 18, 1997, Los Angeles County Radiation Management ("LACRM") and Los Angeles County Fire Department Haz

Mat inspected the CBC/Syntnum facility at 13125 South Broadway facility and determined that CBC/Syntnum possessed radiological materials and radiological waste without a California licence.

23. On September 2, 1997, LACRM issued a Notice of Violation to CBC/Syntnum, citing numerous violations of the applicable California Administrative Code Sections including: a) failing to have a Radiation Safety Officer ("RSO") overseeing the radiation safety program; b) failing to have authorized persons calibrate radiation survey instruments; c) unauthorized use of radioactive materials; d) possessing radiological materials in excess of authorized limits; e) failing to report radioactive materials shipments; f) having radioactive waste in excess of authorized limits; g) failing to pay California license fees; and h) failing to contain radioactive contamination within acceptable limits.

24. On October 8, 1997, the California State Department of Health Services issued an Emergency Order to Dr. Ahmed and CBC/Syntnum. Dr. Ahmed and CBC/Syntnum were ordered to cease using or occupying the Laboratory at the 13125 South Broadway facility, except to the extent necessary to: a) transfer all radioactive materials in his possession away from the 13125 South Broadway facility to a licensed receiving facility; b) decontaminate the 13125 South Broadway facility; and c) evaluate and determine the extent of fixed and removable radiological

contamination. The Emergency Order also required Dr. Ahmed and CBC/Syntrum to restrict access to the laboratory, and to submit a plan for the decontamination and decommissioning of the laboratory and to thereafter and execute approved decontamination and decommissioning plan.

25. On January 20, 1998, the State Department of Health Services wrote to Daniel Suter, EPA OSC, and provided Mr. Suter with background information pertaining to the Site.

26. On January 23, 1998, the State Department of Health Services again wrote to Mr. Suter, formally requesting EPA Region 9's assistance in remediating the CBC/Syntrum Site.

V. CONCLUSIONS OF LAW

27. The CBC/Syntrum Superfund site is a "facility" as that term is defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

28. The Respondents, Dr. Riad M. Ahmed, the California Bionuclear Corporation, the Syntrum Corporation, Young Nam Cho, and Chon Sook Cho, are each "persons" as that term is defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601 (21).

29. The Respondent Dr. Riad M. Ahmed is CBC/Syntrum's Corporate President and the facility's principle scientist. As such he was the operator and generator of hazardous substances at this facility within the meaning of Section 107(a) of CERCLA, 42 U.S.C. § 9607(A).

30. Respondent CBC is the corporate entity initially responsible for the generation and storage of the hazardous materials at the facility from approximately 1987 until approximately March 1997.

31. Respondent Syntrum Corporation is the successor corporation to CBC, and is the corporate entity responsible for the generation and storage of the hazardous substances at the facility from approximately March 21, 1997, when it was incorporated, until the present.

32. Respondents, Young Nam Cho & Chon Sook Cho, are the former property owners of site between February 5, 1990, and July 11, 1997. Mr. and Mrs. Cho owned the Site at times of disposal, as the term "disposal" is defined in Section 101(29) of CERCLA, 42 U.S.C. § 9601(29).

33. Respondents are each "liable parties" within the meaning of Section 107(a), 42 U.S.C. §9607(a), and are subject to this Order under Section 106(a) of CERCLA, 42 U.S.C. §9606(a);

33. Based on the investigations performed to date, carbon-14 is present at the Site. Carbon-14 is a "hazardous substance" as that term is defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14);

34. The past, present or future migration of hazardous substances from the Site constitutes an imminent and substantial endangerment due to the actual or threatened "release" of

hazardous substances, as the term "release" is defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22);

VI. DETERMINATIONS

Based on the Findings of Fact and the Conclusions of Law, the Director of the Hazardous Waste Division, U.S. EPA Region IX, has made the following determinations:

35. That an actual or threatened release of hazardous substances from the Site presents an imminent and substantial endangerment to the public health or welfare or the environment.

36. That conditions present at the Site constitute a threat to public health or welfare or the environment based upon a consideration of the factors set forth in the NCP at 40 C.F.R. § 300.415(b), and that the actions required by this Order are necessary to protect the public health, welfare and the environment.

37. The actions required by this Order, if properly performed, will be deemed consistent with the National Contingency Plan, 40 C.F.R. Part 300 ("NCP"), and are appropriate to protect the public health or welfare or the environment.

VII. NOTICE TO THE STATE

38. Pursuant to Section 106(a) of CERCLA, 42 U.S.C. §9606(a), U.S. EPA has notified the State of California, the County of Los Angeles, and the City of Los Angeles of the issuance of this Order by providing the a copy of this Order.

VIII EFFECTIVE DATE

39. This Order is deemed effective three (3) days following receipt of the Order by Respondents, unless a conference is requested as provided herein. If such a conference is requested, this Order shall be effective the second (2nd) day following the day of such conference unless modified in writing by U.S. EPA.

IX. ORDER

Based on the Findings of Fact, Conclusions of Law, and Determinations, U.S. EPA hereby orders Respondents to perform the specific work set forth below under the direction of the U.S. EPA's On-Scene Coordinator, and to comply with all requirements of this Order:

A. Work and Deliverables:

40. Within five (5) calendar days after the effective date of this Order, Respondents shall prepare and submit to the U.S. EPA for approval all workplan(s) and specification(s) for the removal activities required by this Order. The removal activities required by this Order include, but may not be limited to:

- a. provision of 24-hour security at the Site which meets with EPA approval, including restricting access to the Site and prohibiting the removal of any materials, equipment, or any other item from the Site without prior EPA approval;
- b. a comprehensive radiological survey of the facility, designed to identify all areas of the Site with elevated (above background) readings;

c. sampling, analysis, and identification of all radiological and chemical compounds in all drums, glassware and other containers located at the Site, including those containers without labels or with unreadable labels;

d. segregating all containers located at the Site into groups according to compatibility of their chemical and radiological contents;

e. properly transporting and disposing of all hazardous substances at the Site in accordance with all applicable or appropriate and relevant federal and state laws;

f. providing EPA with copies of all documentation related to off-Site disposal of wastes including, but not limited to, manifests, waste profiles and analytical data and disposal costs; and

g. developing and implementing a post-cleanup sampling and analysis plan.

41. Within five (5) calendar days after the effective date of this Order, Respondents shall submit a Work Plan to U.S. EPA for approval. The Work Plan shall provide a concise description of the activities to be conducted to comply with the requirements of this Order, and shall include a proposed schedule for implementing and completing such activities. In addition to providing a description of the response actions to be conducted, the Work Plan shall also include:

a. a Health & Safety Plan prepared in accordance with EPA's Superfund Standard Operating Safety Guide, dated June 1992, and shall comply with all current Occupational Safety and Health Administration ("OSHA") regulations applicable to Hazardous Waste Operations and Emergency Response, 29 C.F.R. Part 1910.

Respondents shall incorporate all changes to the health and

safety plan recommended by EPA and implement the health and safety plan throughout the performance of the removal action; and

b. a Quality Assurance Project Plan ("QAPP") that is consistent with the "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures," EPA OSWER Directive 9360.4-01, dated April 1990. The Workplan shall be reviewed by U.S. EPA, which may approve, disapprove, require revisions, or modify the Workplan. Once approved, the Workplan shall be deemed to be incorporated into and made a fully enforceable part of this Order. The Respondents shall implement all workplan(s) as finally approved by the U.S. EPA.

42. Respondents shall notify the EPA On-Scene Coordinator ("OSC") at least forty-eight (48) hours prior to any on-Site work. Respondents shall also notify the EPA OSC at least 72 hours prior to disposal of wastes.

43. All documents, including technical reports, and other correspondence to be submitted by the Respondents pursuant to this Order, shall be sent by over-night mail to the addressees set forth below or to such other addressees as U.S. EPA hereafter may designate in writing, and shall be deemed submitted on the date received by U.S. EPA:

Dan Suter, On-Scene Coordinator
Superfund Division, SFD-6
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-2297

William, Weis III, RS
Enforcement Case Manager
Superfund Division, SFD-6
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-2338

David Rabbino
Assistant Regional Counsel
Office of Regional Counsel, RC-3
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-1336

Respondents shall submit two (2) copies of each document to U.S. EPA, and two (2) copies to the DTSC and LACRM.

44. U.S. EPA shall review, comment, and approve or disapprove each plan, report, or other deliverable submitted by Respondents. All U.S. EPA comments on draft deliverables shall be incorporated by the Respondents. U.S. EPA shall notify the Respondents in writing of EPA's approval or disapproval of a final deliverable. In the event of any disapproval, U.S. EPA shall specify the reasons for such disapproval, U.S. EPA's required modifications, and a time frame for submission of the revised report, document, or deliverable. If the modified report, document or deliverable is again disapproved by U.S. EPA, U.S. EPA shall first notify the Respondents of its disapproval of

the resubmitted report, document, or deliverable, and then may draft its own report, document or deliverable and incorporate it as part of this Order, may seek penalties from the Respondents for failing to comply with this Order, or may conduct the remaining work required by this Order.

45. For purposes of this Order, U.S. EPA's authorized representatives shall include, but not be limited to, DTSC, LACRM, and consultants and contractors hired by U.S. EPA to oversee activities required by this Order.

B. Selection of Contractor(s) and Subcontractor(s):

46. All work performed by or on behalf of Respondents pursuant to this Order shall be performed by qualified individuals or contractors with expertise in hazardous waste site investigation or remediation and who are experienced in the proper handling and treatment of radioactive materials. Respondents shall, within five (5) days after the Effective Date of this Order, notify U.S. EPA in writing of the name, title and qualifications of the individual(s) who will be responsible for carrying out the terms of this Order, and the name(s) of any contractor(s) or subcontractor(s). The qualifications of the persons, contractors, and subcontractors undertaking the work for Respondents shall be subject to U.S. EPA review and approval.

47. If U.S. EPA disapproves of any person's or contractor's technical or work-experience qualifications, U.S. EPA will notify

the Respondents in writing. Respondents shall, within five (5) working days of Respondents' receipt of U.S. EPA's written notice, notify U.S. EPA of the identity and qualifications of the replacement(s). Should U.S. EPA disapprove of the proposed replacement(s), Respondents shall be deemed to have failed to comply with the Order.

48. Respondents may propose to change the individual(s), contractor(s), or subcontractor(s) retained to direct and supervise the work required by this Order. If Respondents wish to propose such a change, the Respondents shall notify EPA in writing of the name, title, and qualifications of the proposed individual(s), proposed contractor(s), or proposed subcontractor(s), and such individual(s), contractor(s) or subcontractor(s) shall be subject to approval by U.S. EPA in accordance with the terms of paragraphs 46 and 47 above. The naming of any replacement(s) by Respondents shall not extend any deadlines required by this Order nor relieve the Respondents of any of their obligations to perform the work required by this Order.

49. Respondents will notify U.S. EPA of their respective field activities at least one week before initiating them so that U.S. EPA may adequately schedule oversight tasks.

50. At least seven (7) days prior to commencing any work at the Site pursuant to this Order, Respondents shall submit to U.S.

EPA a certification that Respondents or their contractor(s) and subcontractor(s) have adequate insurance coverage or have indemnification for liabilities for injuries or damages to persons or property which may result from the activities to be conducted by or on behalf of Respondents pursuant to this Order. Respondents shall ensure that such insurance or indemnification is maintained for the duration of performance of the work required by this Order. Respondents shall ensure that the United States is named as an additional named insured on any such insurance policies.

C. General Provisions:

51. All work required by this Order shall be conducted in accordance with: the applicable portions of the EPA Action Memorandum, dated January 26, 1998, (attachment A); CERCLA; the NCP; U.S. EPA Region 9 "Guidance for Preparing Quality Assurance Project Plans for Superfund Remedial Projects" (EPA, November 1992); any final amended or superseding versions of such documents provided by U.S. EPA; other applicable U.S. EPA guidance documents; and any report, document or deliverable prepared by U.S. EPA because Respondents fail to comply with this Order.

52. All plans, schedules, and other reports that require U.S. EPA's approval and are required to be submitted by the Respondents pursuant to this Order and shall, upon approval by

U.S. EPA, be incorporated into and enforceable under this Order.

53. U.S. EPA will oversee Respondents' activities as specified in Section 104(a)(1) of CERCLA Section, 42 U.S.C. §9604(a)(1). Respondents will support U.S. EPA's initiation and implementation of activities needed to carry out its oversight responsibilities. Respondents shall also cooperate and coordinate the performance of all work required to be performed under this Order with all other work being performed at the site, including work performed by U.S. EPA, the State, another Respondent, or any other party performing work at the site with the approval of EPA.

54. Respondents shall undertake all actions required by this Order in accordance with the requirements of all applicable local, state, and federal laws and regulations unless an exemption from such requirements is specifically provided under CERCLA or unless the Respondents obtain a variance or exemption from the appropriate governmental authority. Any hazardous substance removed off-site pursuant to this Order for treatment, storage, or disposal shall be treated, stored, or disposed of at a facility in compliance with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and the EPA "Revised Procedures for Implementing Off-Site Response Actions," (OSWER Directive 98343.11, November 13, 1987).

X. NOTICE OF INTENT TO COMPLY

55. Respondents shall, within three (3) days of the Effective Date of this Order, provide written notice to U.S. EPA of Respondents' irrevocable intent to comply with this Order. Failure to respond, or failure to agree to comply with this Order, shall be deemed a refusal to comply with this Order.

XI. OPPORTUNITY TO CONFER

56. Respondents may, within three (3) days of receipt of this Order, request a conference with the Chief of the Emergency Response Office in the Superfund Division, or whomever the Chief of the Emergency Response Office may designate. If requested, the conference shall occur within three (3) days of the request, unless extended by mutual agreement of the Parties, at U.S. EPA's Regional Office, 75 Hawthorne Street, San Francisco, California.

57. At any conference held pursuant to Respondents' request, the Respondents may appear in person, or be represented by an attorney or other representative. If Respondents desire such a conference, the Respondents shall contact David Rabbino, Assistant Regional Counsel, at (415) 744-1336.

58. The purpose and scope of any such conference held pursuant to this Order shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondents intend to comply with this Order. If such a conference is held, the Respondents may present any

evidence, arguments or comment regarding this Order, its applicability, any factual determinations upon which the Order is based, the appropriateness of any action which the Respondents are ordered to take, or any other relevant and material issue. Any such evidence, arguments or comments should be reduced to writing and submitted to U.S. EPA within three (3) days following the conference. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge this Order. It does not give Respondents a right to seek review of this Order, or to seek resolution of their potential liability, and no official stenographic record of the conference will be made. If no conference is requested, any such evidence, arguments or comments must be submitted in writing within three (3) days following the Effective Date of this Order. Any such writing should be directed to David Rabbino, Assistant Regional Counsel, at the address cited above.

59. Respondents are hereby placed on notice that U.S. EPA will take any action which may be necessary in the opinion of U.S. EPA for the protection of public health and welfare and the environment, and Respondents may be liable under Section 107(a) of CERCLA, 42 U.S.C. Section 9607(a), for the costs of those actions.

XII. ENDANGERMENT AND EMERGENCY RESPONSE

60. In the event of any action or occurrence during the performance of the work which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action(s) to prevent, abate, or minimize the threat, and shall immediately notify U.S. EPA's primary On-Scene Coordinator ("OSC"), or, if the primary OSC is unavailable, U.S. EPA's alternate OSC, as designated below in paragraph 66. If neither of these persons is available, Respondents shall notify the U.S. EPA Emergency Response Unit, Region 9, phone number (415) 744-2000. Respondents shall take such action(s) in consultation with U.S. EPA's OSC and in accordance with all applicable provisions of this Order, including but not limited to the Health and Safety Plan.

61. Nothing in the preceding paragraph shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances at or from the Site.

XIII. MODIFICATION OF WORK REQUIRED

62. In the event of unanticipated or changed circumstances at the Site, Respondents shall notify the U.S. EPA OSC by

telephone within twenty-four (24) hours of discovery of the unanticipated or changed circumstances. This verbal notification shall be followed by written notification postmarked no later than three (3) days of discovery of the unanticipated or changed circumstances.

63. The Director of the Superfund Division, U.S. EPA Region IX, may determine that in addition to tasks addressed herein, additional work may be required to address the unanticipated or changed circumstances referred to in paragraph 62. Where consistent with Section 106(a) of CERCLA, the Director of the Superfund Division, U.S. EPA Region IX, may direct, as an amendment to this Order, that Respondents perform these response actions in addition to those required herein. Respondents shall implement the additional tasks which the Director of the Superfund Division, U.S. EPA Region IX, identifies. The additional work shall be completed according to the standards, specifications, and schedules set forth by the Director of the Superfund Division, U.S. EPA Region IX in any modifications to this Order.

XIV. DESIGNATED PROJECT MANAGERS

64. U.S. EPA designates Dan Suter, an employee of Region IX of U.S. EPA, as its primary On-Scene Coordinator ("OSC") and designated representative at the Site, who shall have the authorities, duties, and responsibilities vested in the OSC by the NCP. This includes, but is not limited to, the authority to

halt, modify, conduct, or direct any tasks required by this Order or undertake any response actions (or portions of the response action) when conditions at the Site present or may present a threat to public health or welfare or the environment as set forth in the NCP. Within fifteen (15) days of the Effective Date of this Order, Respondents shall designate a Project Coordinator who shall be responsible for overseeing Respondents' implementation of this Order. To the maximum extent possible, all oral communications between Respondents and U.S. EPA concerning the activities performed pursuant to this Order shall be directed through U.S. EPA's OSC and Respondents' Project Coordinator. All documents, including progress and technical reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be delivered in accordance with Paragraphs 28-30 above.

65. U.S. EPA and Respondents may change their respective OSC and Project Coordinator. Notification of such a change shall be made by notifying the other party in writing at least five (5) days prior to the change, except in the case of an emergency, in which case notification shall be made orally followed by written notification as soon as possible.

66. Consistent with the provisions of this Order, the U.S. EPA designates William Lewis as an alternate OSC, in the event

Dan Suter is not present at the site or is otherwise unavailable. During such times, William Lewis shall have the authority vested in the On-Scene Coordinator ("OSC") by the NCP, as set forth in paragraph 64 above.

67. The absence of the U.S. EPA OSC from the Site shall not be cause for the stoppage of work. Nothing in this Order shall limit the authority of the U.S. EPA OSC under federal law.

XV. SITE ACCESS

68. Respondents shall permit U.S. EPA and its authorized representatives to have access at all times to the Site to monitor any activity conducted pursuant to this Order and to conduct such tests or investigations as U.S. EPA deems necessary. Nothing in this Order shall be deemed a limit upon U.S. EPA's authority under federal law to gain access to the Site.

69. To the extent that Respondents require access to land other than land they own or otherwise control in carrying out the terms of this Order, Respondents shall, within fifteen (15) days of the Effective Date of this Order, obtain access for U.S. EPA, its contractors, oversight officials, or other authorized representatives; state oversight officials and state contractors; and Respondents or their authorized representatives. If Respondents fail to gain access within fifteen (15) days, they shall continue to use best efforts to obtain access until access is granted. For purposes of this paragraph, "best efforts" in-

cludes but is not limited to, seeking judicial assistance, providing indemnification, or the payment of money as consideration for access. If access is not provided within the time referenced above, U.S. EPA may obtain access under Sections 104(e) or 106(a) of CERCLA.

XVI. REIMBURSEMENT OF OVERSIGHT COSTS

70. Respondents shall reimburse U.S. EPA, upon written demand, for all response costs incurred by the United States in overseeing Respondents' implementation of the requirements of this Order. U.S. EPA may submit to Respondents, on a periodic basis, a bill for all response costs incurred by the United States with respect to this Order. Respondents shall, within thirty (30) days of receipt of the bill, remit by cashiers or certified check for the amount of those costs made payable to the "Hazardous Substance Superfund." Respondents shall remit payment to the following address:

U.S. Environmental Protection Agency
Region 9, Attn.: Superfund Accounting
P.O. Box 360863M
Pittsburgh, PA 15251

Respondents shall send a cover letter with any check and the letter shall identify the CBC/Syntrum Site by name and make reference to this Order. Respondents shall send simultaneously to the U.S. EPA OSC notification of any amount paid, including a photocopy of the check.

71. Interest at the rate established under section 107(a) of CERCLA shall begin to accrue on the unpaid balance from the day of the original demand notwithstanding any dispute or objection to any portion of the costs.

XVII. DELAY IN PERFORMANCE

72. Any delay in performance of any requirement of this Order that, in the U.S. EPA's judgment, is not properly justified by Respondents under the terms of this Section shall be considered a violation of this Order. Any delay in performance of any requirement of this Order shall not affect any other obligation of Respondents under the terms and conditions of this Order.

73. Respondents, as applicable, shall notify U.S. EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to U.S. EPA's primary OSC within twenty-four (24) hours after Respondents first knew or should have known that a delay might occur. The Respondents shall adopt all reasonable measures to avoid or minimize any such delay. Within three (3) days after notifying U.S. EPA by telephone, the Respondents shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why the Respondents should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and

taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order are not justifications for any delay in performance.

74. If Respondents are unable to perform any activity or submit any document within the time required under this Order, the Respondents may, prior to the expiration of the time, request an extension of time in writing. The extension request shall include a justification for the delay. The submission of an extension request shall not itself affect or extend the time to perform any of Respondents' obligations under this Order.

75. If U.S. EPA determines that good cause exists for an extension of time, it may grant a request made by Respondents pursuant to paragraph 74 above, and specify in writing to the Respondents the new schedule for completion of the activity and/or submission of the document for which the extension was requested.

XVIII. RECORD PRESERVATION

76. Respondents shall maintain, during the pendency of this Order, and for a minimum of five (5) years after U.S. EPA provides notice to Respondents that the work has been completed, a depository of the records and documents required to be prepared under this Order. In addition, each Respondent shall retain

copies of the most recent version of all documents that relate to hazardous substances at the Site and that are in its possession or in the possession of its employees, agents, contractors, or attorneys. After this five-year period, Respondents shall notify U.S. EPA at least thirty (30) days before the documents are scheduled to be destroyed. If U.S. EPA so requests, Respondents shall provide these documents to U.S. EPA.

XIX. ENFORCEMENT AND RESERVATIONS

77. U.S. EPA reserves the right to bring an action against Respondents under Section 107 of CERCLA, 42 U.S.C. §9607, for recovery of any response costs incurred by the United States related to this Order and not reimbursed by Respondents. This reservation shall include but not be limited to past costs, direct costs, indirect costs, the costs of oversight, the costs of compiling the cost documentation to support oversight costs, as well as accrued interest as provided in Section 107(a) of CERCLA, 42 U.S.C. §9607.

78. Notwithstanding any other provision of this Order, at any time during the response action, U.S. EPA may perform its own studies, complete the response action (or any portion of this response action) and seek reimbursement from Respondents for its costs, or seek any other appropriate relief.

79. Nothing in this Order shall preclude U.S. EPA from taking any additional enforcement action, including modification

of this Order or issuance of additional Orders, or additional remedial or removal actions as U.S. EPA may deem necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA, 42 U.S.C. §9607(a), et seq., or any other applicable law. Respondents shall be liable under CERCLA Section 107(a), 42 U.S.C. §9607(a), for the costs of any such additional actions.

80. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, the Resource Conservation and Recovery Act, or any other applicable statutes or regulations.

81. Notwithstanding compliance with the terms of this Order, including the completion of an U.S. EPA-approved response actions, Respondents are not released from liability, if any, for any enforcement actions beyond the terms of this Order taken by U.S. EPA.

82. U.S. EPA reserves the right to take any enforcement action pursuant to CERCLA or any other legal authority, including the right to seek injunctive relief, monetary penalties, reimbursement of response costs, and punitive damages for any violation of law or this Order.

83. U.S. EPA expressly reserves all rights and defenses that it may have, including the U.S. EPA's right both to

disapprove of work performed by Respondents and to request the Respondents perform tasks in addition to those detailed in this Order, as provided in Section VIII(a) (Work to be Performed) of this Order.

84. This Order does not release Respondents, individually or collectively, from any claim, cause of action or demand in law or equity, including, but not limited to, any claim, cause of action, or demand which lawfully may be asserted by representatives of the United States or the State of California.

85. No informal advice, guidance, suggestions, or comments by U.S. EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondents will be construed as relieving Respondents of their obligation to obtain such formal approval as may be required by this Order.

XX. SEVERABILITY

86. If any provision or authority of this Order or the application of this Order to any circumstance is held by a court to be invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby, and the remainder of this Order shall remain in force.

XXI. DISCLAIMER

87. The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property

resulting from acts or omissions by Respondents, or their employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order. Neither U.S. EPA nor the United States shall be held as a party to any contract entered into by Respondents, or their employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order.

XXII. PENALTIES FOR NONCOMPLIANCE

88. Each Respondent is advised pursuant to Section 106(b) of CERCLA, 42 U.S.C. Section 9606(b), that willful violation or subsequent failure or refusal to comply with this Order, or any portion thereof, may subject the non-complying Respondent to a civil penalty of up to \$25,000 per day for each day in which such violation occurs, or such failure to comply continues. Failure to comply with this Order, or any portion thereof, without sufficient cause may also subject the non-complying Respondent to liability for punitive damages in an amount three times the amount of any cost incurred by the government as a result of the failure of a Respondent to take proper action, pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. Section 9607(c)(3).

XXIII. TERMINATION AND SATISFACTION

89. The provisions of this Order shall be deemed satisfied upon Respondents' receipt of written notice from U.S. EPA that

Respondents have demonstrated, to the satisfaction of U.S. EPA, that all of the terms of this Order, including any additional tasks which U.S. EPA has determined to be necessary, have been completed.

Unilateral Administrative Order 98-04

IT IS SO ORDERED:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

By: *Michael Healey*
Keith A. Takata, Director
Superfund Division
Region 9

Date: 3/3/98

EPA Region 9 Contacts:

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David Rabbino, Assistant Regional Counsel
Office of Regional Counsel, RC
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75 Hawthorne Street
San Francisco, CA 94105
(415) 744-1336

Attachments

Exhibit "A"

Additional Definitions

"Action Memorandum" shall mean the Action Memorandum issued by the United States Environmental Protection Agency on February 6, 1998. A copy of the publically releaseable portion of the Action Memorandum is attached hereto as exhibit "B".

"Construction" shall mean the Respondents', or their contractor's, installation/construction of the specific response actions each is required to perform pursuant to this Order.

"Contractor" shall mean Respondents' contractor(s) and subcontractors contracted to perform the installation/construction, and operation and maintenance activities relating to any of the specific response actions at the Site Respondents are required to perform.

"Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

"Identified Contamination" shall mean any contamination, or threat of contamination, resulting from the release, or threat of release, of any hazardous substances, pollutants, contaminants, or solid waste identified in the administrative record for the Site as of the effective date of EPA's Action Memorandum for the Site, dated February 6, 1998, and other technical reports reflecting the results of all sampling activities conducted at the Site prior to that time.

"Operation and Maintenance activities" shall include future operation and maintenance of all structures built or installed to contain the arsenic contamination at the Site until such time as EPA approves the cessation of such activities.

"Paragraph" shall mean a portion of this Unilateral Order identified by an Arabic numeral.

"Parties" shall mean the United States, the Syntrum Corporation (formerly known as the California Bionuclear Corporation), Riad M. Ahmed, Ph.D., Young Nam Cho, and Chon Sook Cho.

"Section" shall mean a portion of this Unilateral Order identified by a Roman numeral and including one or more paragraphs.

"Site" shall mean the California Bionuclear Corporation/Syntrum Corporation Superfund Site ("CBC/Syntrum"), which includes located at 13125 South Broadway, in an unincorporated part of Los Angeles County, California. The Site occupies approximately 1.1 acres in a light industrial/warehousing area of an unincorporated area of Los Angeles.




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MEMORANDUM

DATE: February 6, 1998

SUBJECT: Request for Approval of a Removal Action at the Syntrum Corporation site in Los Angeles, CA.

FROM: Dan Suter, OSC 
Emergency Response Office (SFD-6)

TO: Keith Takata, Director
Superfund Programs (SFD-1)

Thru: Terry Brubaker, Chief
Emergency Response Office (SFD-6)

ACTION MEMORANDUM

I. Purpose

The purpose of this action memorandum is to request and document approval of the proposed CERCLA removal action described herein for the Syntrum Corporation, Inc., site located in Los Angeles, California.

Conditions presently exist at the Site which, if not addressed by implementing the response actions documented in this Action Memorandum, may lead to the off-site migration and release of contaminants which could pose an imminent and substantial endangerment to the public health or welfare or the environment.

II. SITE CONDITIONS AND BACKGROUND

Site Status: Non-NPL

Category of Removal: Time Critical

CERCLIS ID: CA0002268837

Site ID: EH

A. Site Description

1. Removal site evaluation

The Syntrum Corporation site is located at 13125 South Broadway, Los Angeles, California (the "Site"). The Site is located in a light industrial / warehouse area. The Syntrum Corporation is a chemical research, development, and manufacturing laboratory that incorporated Carbon 14 into organic compounds. Carbon 14 is a radioactive isotope of carbon and is a low energy beta emitter. Carbon 14 is used in chemical research as a tag for following the progress of a reaction and evaluating the end results of the reaction. Other activities occurring at the Syntrum Corporation involved experimental organic synthesis and viral drug research.

On August 16, 1997 there was a fire and explosion at the facility. Los Angeles County Fire Department ("LAFD") responded and found that the building fire sprinklers had flooded the facility, resulting in the migration of Carbon 14 contaminated runoff into the streets. Unsafe conditions resulting from the facility fire and water damage prompted LAFD to red tag the facility. The red tag designation disallowed business operations other than approved cleanup activities.

On September 17, 1997, at the request of the California Department of Health Services Radiation Health Branch ("RHB"), the United States Environmental Protection Agency ("EPA") START contractor conducted an assessment of the facility. The facility was found to contain thousands of improperly stored chemical containers, representing all hazard classes. Due to the elevated radiation levels encountered, a full inventory of the laboratory containers was not completed. A patio area behind the laboratory was found to contain drums, filing, flame-proof, and utility cabinets, all of which contain chemicals. Two drums have radioactive waste labels affixed to them. The laboratory ventilation system was sampled and found to contain radioactive contamination in excess of established guidance limits for Carbon 14.

On October 8, 1997 the USEPA Superfund Technical Support Team in conjunction, with RHB performed a radiological assessment of a dumpster located at the Syntrum facility. Chemical residue, glassware and radioactive chemicals were found. Typical background counts for Carbon 14 in the area is 42 counts per minute ("cpm"). The residue in the dumpster read 8,000 cpm. One chemical container found read 88,648 cpm. On October 8, 1997, RHB issued an Order to Divest of all radioactive materials to Dr. Ahmed the primary owner of Syntrum. Dr. Ahmed failed to comply with the Order. The Los Angeles District Attorney's office ("L.A. DA") has filed criminal charges against Dr. Ahmed.

On January 23, 1998 the California Department of Health Services ("DHS") requested EPA assistance in responding to the situation at the Syntrum site.

2. Physical Location

The site is located at 13125 South Broadway, Los Angeles County (unincorporated area), CA (Figure 1:Site Location Map).

3. Site characteristics

The site is located in a light industrial / warehouse area. There are approximately 45

businesses within one a mile radius of the site. The site consists of one building housing a laboratory that contains thousands of chemical containers and Carbon 14 contaminated areas. There is a covered patio area at the rear of the facility containing multiple wood shelves, filing, flammable-proof storage cabinet, utility cabinets, and drums, all of which contain chemical containers. A dumpster containing debris contaminated with radioactive compounds has been moved to a secured area within the building.

4. Release or threatened release into the environment of a hazardous substance , or pollutant or contaminant

Preliminary results indicate that the contents of containers at the site include the following D.O.T. hazard classes: oxidizers, corrosives, poisons, flammable liquids, water reactives, flammable solids, air reactives, and radioactive sources. A partial list is attached to this memo.

The conditions at the Site were evaluated using the criteria established in the National Contingency Plan ("NCP"). Chemicals identified at the Site are "hazardous substances" as defined by section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and 40 C.F.R. Section 302.4 and Table 302.4.

The potential for an unmitigated release of the materials present at the Site constitutes a threat to the local population.

5. NPL status

This site is not on the NPL nor is it expected to be.

6. Maps, pictures and other graphic representations

A map and pictures are attached.

B. Other Actions to Date

1. Previous actions

In 1987, the EPA Emergency Response Section oversaw and eventually completed a CERCLA removal action at the California Bionuclear facility located in Sun Valley, California. California Bionuclear is the former business name of the Syntrum Corporation, prior to Syntrum's relocation to the Los Angeles County address. The removal was prompted by a fire at the facility which resulted in the destruction of the facility and the generation of a large quantity of hazardous and radioactive wastes. California Bionuclear (now the Syntrum Corporation) began the removal action under the terms of a Unilateral Order issued by EPA (Docket No. 86-09)

Part way through the removal, California Bionuclear claimed it was financially incapable of completing the removal action and EPA completed the effort using CERCLA funds. Prior to stopping work, the facility operator segregated the useable laboratory reagents from the waste chemicals and moved them to the present facility.

On June 18, 1997, the L.A. FD Health and Hazardous Materials Division ("HHMD") issued a Notice of Violation ("NOV") to the Syntrum Corporation for hazardous materials management violations (predominantly hazardous materials labeling and storage issues). The HHMD issued a second NOV on July 9, 1997, for various hazardous materials storage violations.

On August 16, 1997, there was an explosion and fire at the Syntrum Corporation facility. The cause of the fire is believed to have been an uncontrolled chemical reaction originating inside one of the fume hoods. The fire set off the fire sprinklers inside the building, resulting in building flooding and off-site migration of Carbon 14 contaminated runoff into the streets and the gutter. Unsafe conditions resulting from facility fire and water damage prompted the LAFD to red tag the business. The red tag designation disallowed business operations other than designated cleanup activities.

Syntrum was previously issued a radioactive materials license by the RHB to allow for the possession and handling of Carbon 14. The license expired in April 1996 and was never renewed. During the fire suppression operation in August 1997, Dr. Ahmed denied that there was a radioactive health threat. Sampling of the runoff by response agencies determined the presence of Carbon 14 radiation above background levels. This resulted in DHS issuing an NOV to Syntrum on September 2, 1997 for radioactive materials handling license violations. DHS is the local administrative agency for RHB and State radiation regulations. Dr. Ahmed did not respond to this NOV. As a result, on October 8, 1997, the RHB (through DHS) issued Dr. Ahmed and Syntrum an Order to Divest of all radioactive materials. The Order provided Syntrum with 15 days to submit a decommissioning plan and an additional 15 days after plan approval by RHB and DHS to begin decommissioning operations. Dr. Ahmed requested a public hearing as related to the Order but did not appear. To date, he has failed to comply with any provisions of the Order.

On September 18, 1997, EPA and START met with representatives from the L.A. DA, L.A. FD, HHMD, DHS and California Department Of Toxic Substance Control ("DTSC") to discuss activities and findings. It was decided that in its current red-tagged and secured status, the immediate threat posed by the facility was minimal as long as no operations were occurring. However, all parties involved believed that the continued storage of incompatible chemical and radioactive materials greatly increased the risk another explosion or fire at the facility, the result of which would pose an imminent and substantial threat to public health due to the large volume and varied makeup of the chemicals stored in and around the building.

2. Current actions

No site activities are currently underway. The L.A. DA has filed criminal charges against Dr. Ahmed.

C. State and Local Authorities's Roles

1. State and local actions to date

See II.B.1 above

2. Potential for continued State / Local response

DHS has requested EPA's assistance to address the Syntrum facility. LAFD will provide backup support during an emergency removal action. Neither the State of California nor Los Angeles County have adequate resources to conduct the required cleanup action.

III. THREATS TO PUBLIC HEALTH AND WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health , or Welfare of the environment

Threats to public health or welfare or the environment stem primarily from the threat of a spontaneous chemical reaction due to improper chemical storage resulting in the initiation of a fire or explosion that could release radioactive contamination in the form of Carbon 14 throughout a wide area. Carbon 14 is a radioactive isotope and a low energy Beta emitter. Beta particles are electrons or positrons that are emitted from the nucleus after the transformation of a neutron or proton. Human contact with excess levels of Beta particles can cause considerable damage to the skin and the eyes, and they are an internal hazard if ingested or inhaled. A partial list of the substances of concern is in attachment 1.

1. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain.

Threats to public health, welfare or the environment are posed by the presence of large quantities of containers containing hazardous substances and wastes at the site. The site is located off a county road and is accessible to the public. There are significant volumes of flammable and oxidizer chemicals in close proximity to combustible materials which pose a threat of fire and/or explosion at the location. In the event of fire or explosion, radioactive contamination in the form of Carbon 14 could be released over a wide area.

2. Actual or potential contamination of drinking water supplies.

There is minimal threat to drinking water supplies.

3. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release.

Numerous containers of hazardous substances are stored at the Site. These containers pose a threat of release, as some containers containing incompatible materials are in deteriorating condition and are in close proximity to each other.

4. High levels of hazardous substances or pollutants or contaminants in soils at or near the surface, that may migrate.

Chemicals stored in containers at the Site could cause contamination of surface soils in the event of a release.

5. Threat of fire or explosion.

There are significant volumes of flammable and oxidizer chemicals in close proximity to combustible materials which pose a threat of fire or explosion at the location. A fire or explosion could also cause a release of radioactive material.

6. Availability of other appropriate Federal or State response mechanisms to respond to the release.

The cost of the cleanup exceeds the amount of funding available to State and local agencies.

B. Threats to the Environment

1. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby animals or the food chain

The wastes on site is presently contained; however, the site presents a fire or explosion hazard that could release hazardous substances to animals or the food chain.

2. Actual or potential contamination of sensitive ecosystems

No endangered or threatened animal or plant species have been identified in the immediate area at this time.

3. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release

The wastes on-site are presently contained; however, the deteriorated condition of many of the containers and the presence of incompatible chemicals at the Site presents a fire or explosion hazard that could release hazardous substances to animals or the food chain.

4. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate

N/A

5. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

The waste on-site is presently contained within a building located at the Site. Weather conditions alone should not cause a release.

6. Threat of fire or explosion

There are significant volumes of flammable and oxidizer chemicals located in close proximity to combustible materials which pose a threat of fire or explosion at the location. A fire or explosion could also cause a release of radioactive material.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions selected in this Action Memorandum, present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

The removal action will consist of the following activities:

1. Performing a radiological survey, comprehensive waste inventory; and all sampling necessary to characterize the hazardous substances on-site;
2. Preparing all hazardous substances for proper transportation and disposal, or where feasible, alternative treatment or reuse/recycle options. The above may include bulking of compatible materials, direct shipment for reuse, recontainerization of materials into DOT specification containers, lab packing, and neutralization or other on-site treatment of wastes. All chemical containers will be taken from their respective locations, logged on inventory sheets, assigned to appropriate waste groups and placed into lab pack containers for disposal. Unknown and/or unlabeled containers will be segregated and tested for hazardous characteristics through field chemistry. After lab packing, the drums will be staged and secured on-site pending acceptance at the disposal facility; and
3. Based upon radiological surveys, decontamination of the laboratory building through physical removal and or washing of all contaminated areas.

2. Contribution to remedial performance

Though no long term action is expected to be required at this time, nothing in this proposal should adversely affect any long-term remedial action.

3. Description of alternative technologies

No alternative technologies are proposed at this time.

4. EE/CA

N/A

5. Applicable or relevant and appropriate requirements (ARARs)

Section 300.415(I) of the NCP provides that removal actions must attain ARARs to the extent practicable, considering the exigencies of the situation.

Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under Federal environmental or State environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location, or

other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular site.

Because CERCLA on-site response actions do not require permitting, only substantive requirements are considered as possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance of permits, documentation, reporting, record keeping, and enforcement are not ARARs for the CERCLA sections confined to the site.

Only those State standards that are identified by a State in a timely manner and are more stringent than Federal requirements may be applicable or relevant and appropriate.

The following ARARs have been identified for the proposed response action. All can be attained.

Federal ARARs: Potential Federal ARARs are the RCRA Land Disposal Restrictions (LDRs) 40 CFR 268.40 Subpart D implemented through Title 22 Section 66268.40; the CERCLA Off-Site Disposal Rule Osmer Directive 9347.3-8FS; and the U.S. Department of Transportation of Hazardous Materials Regulations 49 CFR Part 171, 172 and 173.

State ARARs: None identified at this time; subagencies of the California EPA, including the RWQCB and DTSC, as well as the Department of Health Services Radiation Health Branch, will be requested to identify potential state and local ARARs for consideration.

6. Project schedule

The proposed removal action is planned to commence in February 1998. The initial surveys, labpacking, and stabilization is anticipated to take three weeks. Due to the difficulties associated in disposing of radioactive and mixed waste the final transport and disposal of all site waste may take up to six months.

B. Estimated Costs

See Appendix B attached.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If the removal action should be delayed or not taken, the risk of a fire and or explosion due to the improper storage of incompatible chemicals will continue to pose the immediate threat of exposure to people and the environment in the vicinity of the site. Of particular concern is the potential of a radiological release initiated by a fire and or explosion. Radiological contamination could migrate making future response efforts more technically difficult and expensive.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

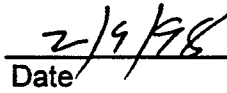
See Appendix A attached.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Syntrum Inc. site, in Los Angeles, CA, developed in accordance with Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") as amended, 42 U.S.C. §9601 et seq., and the National Contingency Plan ("NCP"), 40 C.F.R. Part 300. This decision is based on the administrative record for the site.

Conditions at the site meet the NCP section 300.415(b)(2) criteria for a removal. It is recommended that you approve the proposed removal action. The total project ceiling if approved will be \$618,457. Of this, an estimated \$415,549 comes from the Regional removal allowance.


Approval Signature


Date

Disapproval Signature

Date

Appendix B

Estimated Costs

Project ID No. : 1E
Cleanup Contractor: CET

Date: February 4, 1998
START Contractor: E & E

ERRS Contractor Personnel	\$ 95,622
Contractor Equipment	8,836
At cost Materials	5,500
Subcontractors	15,000
Waste Transportation	8,500
Waste Disposal	212,000
Cleanup Contractor Subtotal	\$ 345,458
Extramural Contingency (20%)	69,091
Extramural Subtotal	\$ 415,549
START Personnel	83,423
Total Extramural Subtotal	\$ 498,972
Project Contingency (15%)	74,845
Total Extramural Cost	573,817
EPA Regional Personnel	44,640
Total Project Cost	----- \$ 618,457

Maps

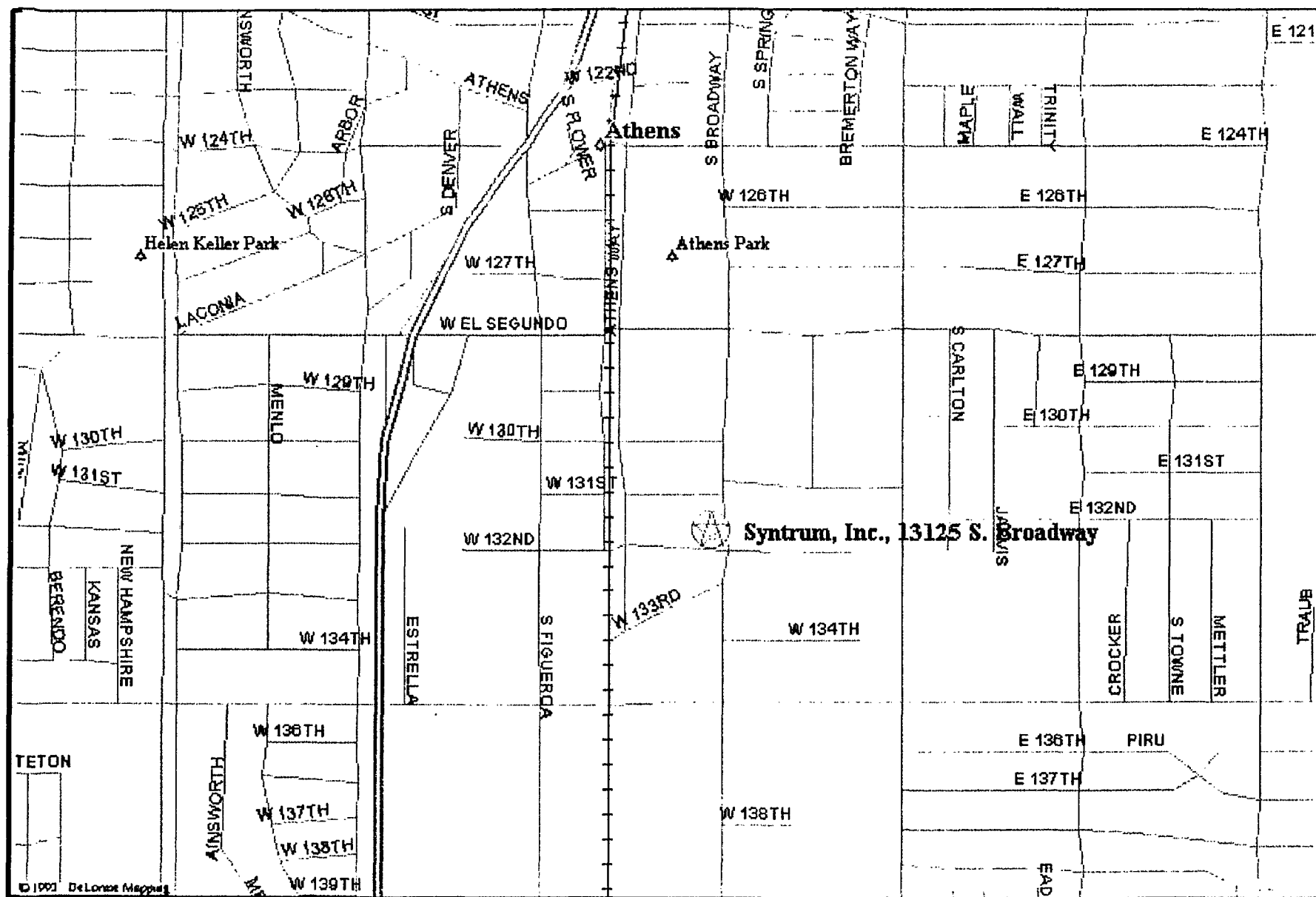
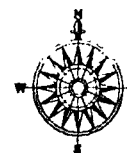
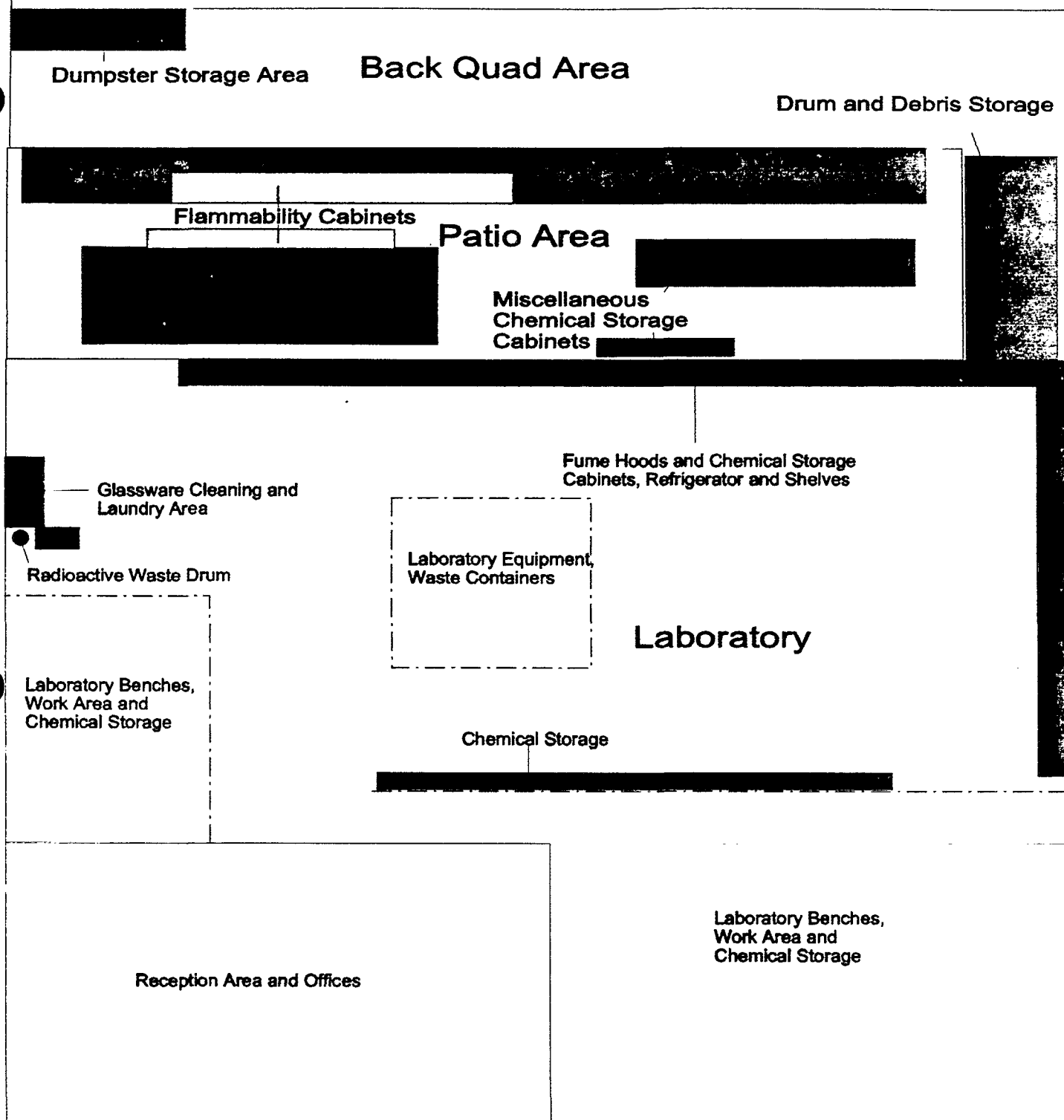


Figure 1: Site Location Map
 Syntnum, Inc.
 Los Angeles Co., CA



Empty Warehouse Building (Dumpster Storage after 10/10/97)



Ecology and Environment, inc.

Figure 2: Facility Diagram
Syntrum, Inc.
Los Angeles Co., CA
not to scale

Attachment 1

A partial list of the substances of concern

Chemical	Primary Hazard/Incompatibilities	Comments
Thioglycol		
Thionyl Chloride	Air Reactive	
Sodium Hydride	Flammable Solid, Water and Air Reactive	
Ammonia meta-vanadite	Decomposes when heated to NH3 and Nitrogen Oxides	
Acetylenedicarboxylic Acid	Forms acid fumes and nitrogen oxides when heated	
Ancymidol		Pesticide
Azelaic Acid	Reacts with oxidizers upon heating	
Acetylene Chloride	Incompatible with oxidizers and moisture	Requires refrigeration
Ammonium Pyrrolidine Dithiocarbamate	Strong Base	
Benzamide	Decomposes to Nitrogen Oxides when heated	
Hydrobromic Acid	Corrosive, Water reactive	
Hexanoic Anhydride	Moisture Sensitive	
3,5-Dinitro benzoic Acid	Incompatible with strong oxidizers	
Hydroxylamine Hydrochloride	Decomposes to nitrogen oxides and hydrogen chloride when heated	
Isobutyl Chloroformate	gradual decomposition in alcohol or water	
Dimethyl Hydrogen Phosphite	Carcinogen	
6-Mercaptopurine	Carcinogen	Schedule 3, CW Ban
Silver Oxide	Strong Oxidizer, photo-sensitive	
Chemical	Primary Hazard/Incompatibilities	Comments
Cacodylic Acid	Releases arsenic when combusted	herbicide
3-Nitroaniline		
Trimethylacetyl chloride	Water reactive, flammable	

1,2,3-Trichlorobenzene	Reactive with oxidizers	
p-Toluene Sulfonamide	Decomposes upon heating to nitrogen and sulfur oxides	
1,1,3,3-Tetramethylurea	Decomposes upon heating to nitrogen oxides	
Theophylline		
1,2,4-Trizol		Asthma medication
3,4-Methylene Dioxybenzaldehyde	Incompatible with oxidizers	
Chloroform	Decomposes to chlorine when heated, Incompatible with acetone	
Mercuric Nitrate	Oxidizer, skin hazard, Mercury fumes and nitrogen oxides released when heated, explosion hazard when heated	
Propionic Acid		
Potassium Cyanate	Decomposes to cyanide upon heating	
Sodium ethoxide	Water Reactive	
Sodium Cyanoborohydride	Water Reactive	
Barium Rod	Water Reactive	
Lithium Aluminum Hydride	Reactive with water, acids and TCE	
Sodium Bromohydride	Reactive with water	
Chemical	Primary Hazard/Incompatibilities	Comments
Chlorosulfonic Acid	Water reactive, decomposes to hydrogen chloride and sulfur oxides, incompatible with organics, acids, metals	
Tetrahydrofuran	Decomposes to explosive peroxides, incompatible with oxidizers	
Methylene Chloride	Decomposes when heated to phosgene, Incompatible with lithium, sodium and potassium, air reactive	
Antimony Pentachloride	Oxidizer, corrosive, fumes in air, skin hazard, produces poison gases when combusted	
Methanol	Flammable	

Hydrochloric Acid	Strong Acid	
Phosphoric Acid	Acid	
Di(ethylene glycol) Diethyl Ether	Flammable	
Phosphorus, Amorphous	Flammable solid, incompatible with peroxides, oxidizers, reducers	
Cyclohexamine	Strong Base	
Lithium Hydroxide	toxic fumes when combusted, incompatible with air, water, strong acids and oxidizers	
Ammonium Acetate	decomposes into carbon monoxide, nitrogen oxides and ammonia vapors, incompatible with strong oxidizers and acids	
TEA	decomposes into carbon monoxide, nitrogen oxides and ammonia vapors, incompatible with strong corrosives, oxidizers, aldehydes, ketones, acrylates and organic anhydrides	Schedule 3 CW Ban
9-Fluorenone	irritant	
Anhydrous Ammonia	irritant, volatile, toxic	
Chemical	Primary Hazard/Incompatibilities	Comments
DMSO	hygroscopic, skin hazard, Incompatible with oxidizers and water	
Pyrogallol, 99%	irritant, incompatible with oxidizers, bases, ammonia, iodine and metal oxides	
Nitric Acid	Strong Acid, oxidizer	
Tributyl tin hydride		
3-amino-1-propanol		
methyl acetoacetate		
2,4,5-Trichlorophenoxy acetic acid		
quinoline	produces nitrogen oxides when combusted	
sodium tert-butoxide		
neopentanol amine		

Photo Documentation



Photo 1: Media Staging Area
Date: 09/17/97

Photographer: L. Salazar

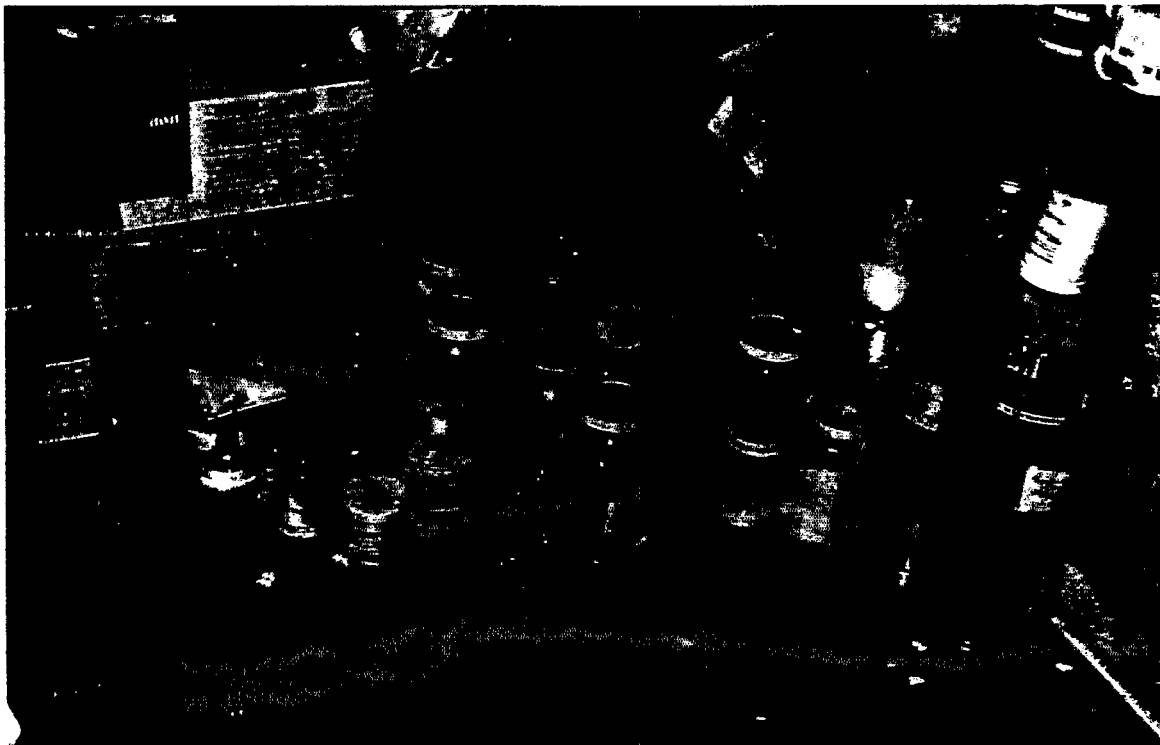


Photo 2: Chemical Storage in a utility closet
Date: 09/17/97

Photographer: R. Wise

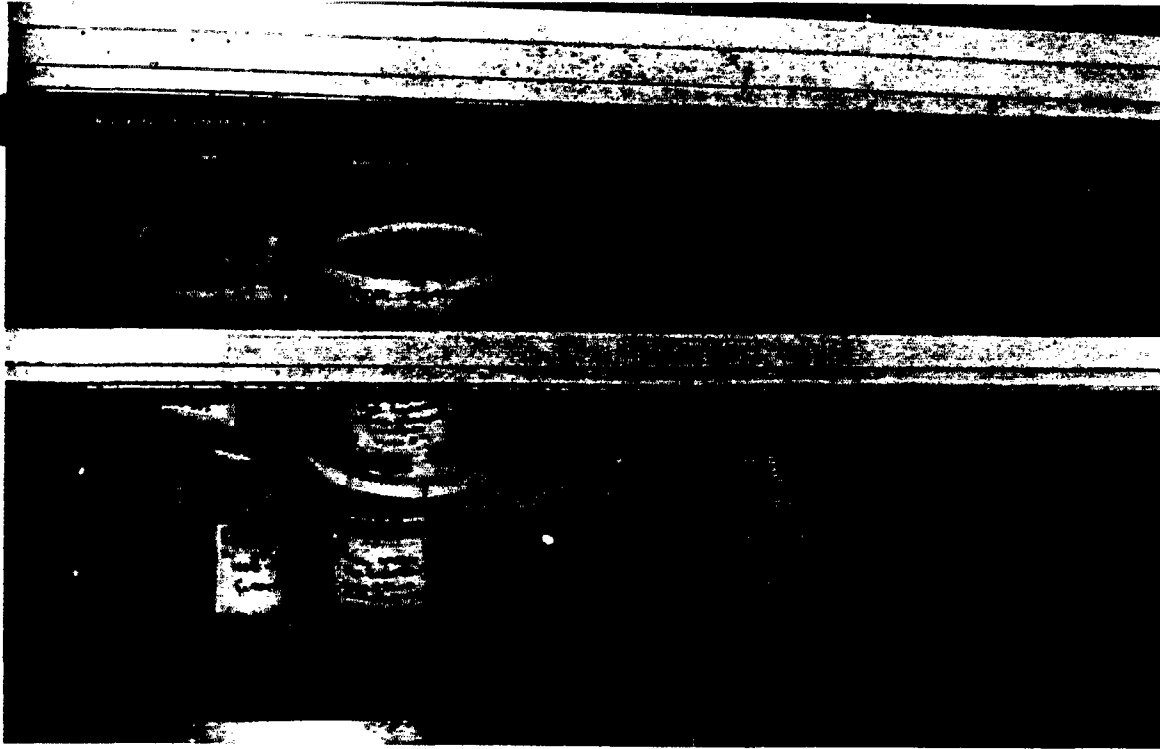


Photo 5: Materials labeled as hazardous waste inside a fume hood.

Date: 09/17/97

Photographer: R. Wise



Photo 6: Radioactive waste storage drum.

Date: 09/17/97

Photographer: R. Wise



Photo 7: Wood shelves used to store
chemicals on the back patio.
Date 09/17/97
Photographer R. Wise

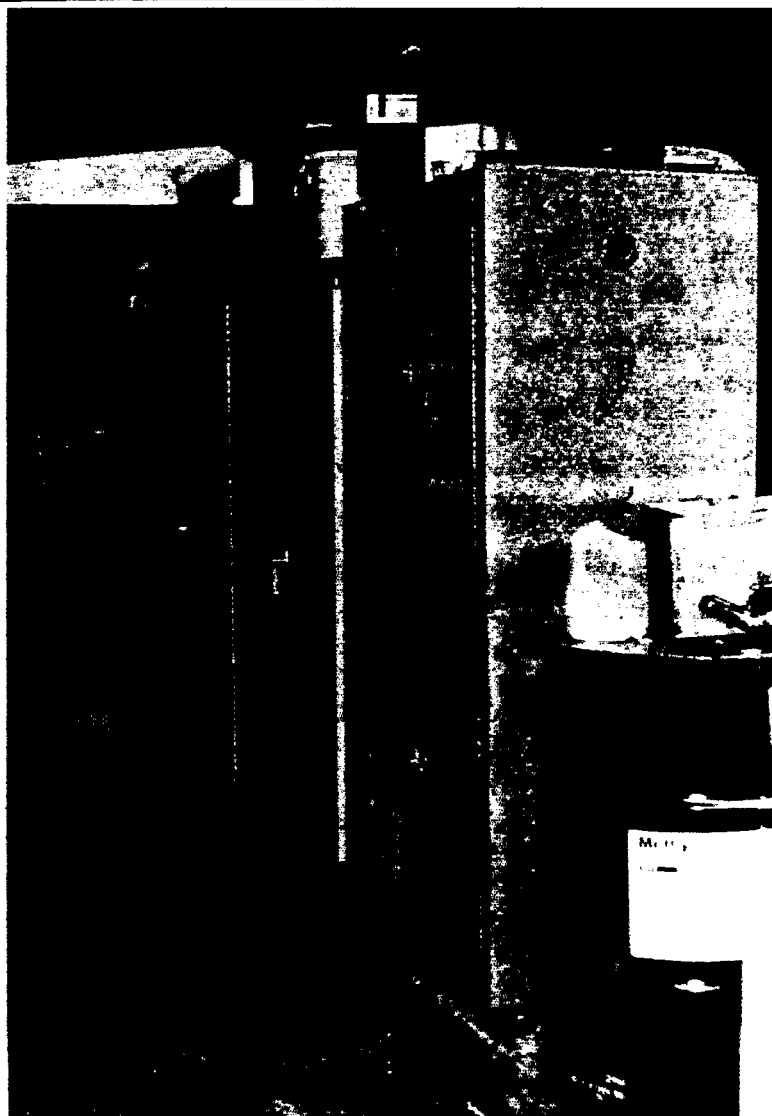


Photo 8: Flammable chemical cabinets,
drums and miscellaneous storage
containers in back patio.
Date 09/17/97
Photographer R. Wise

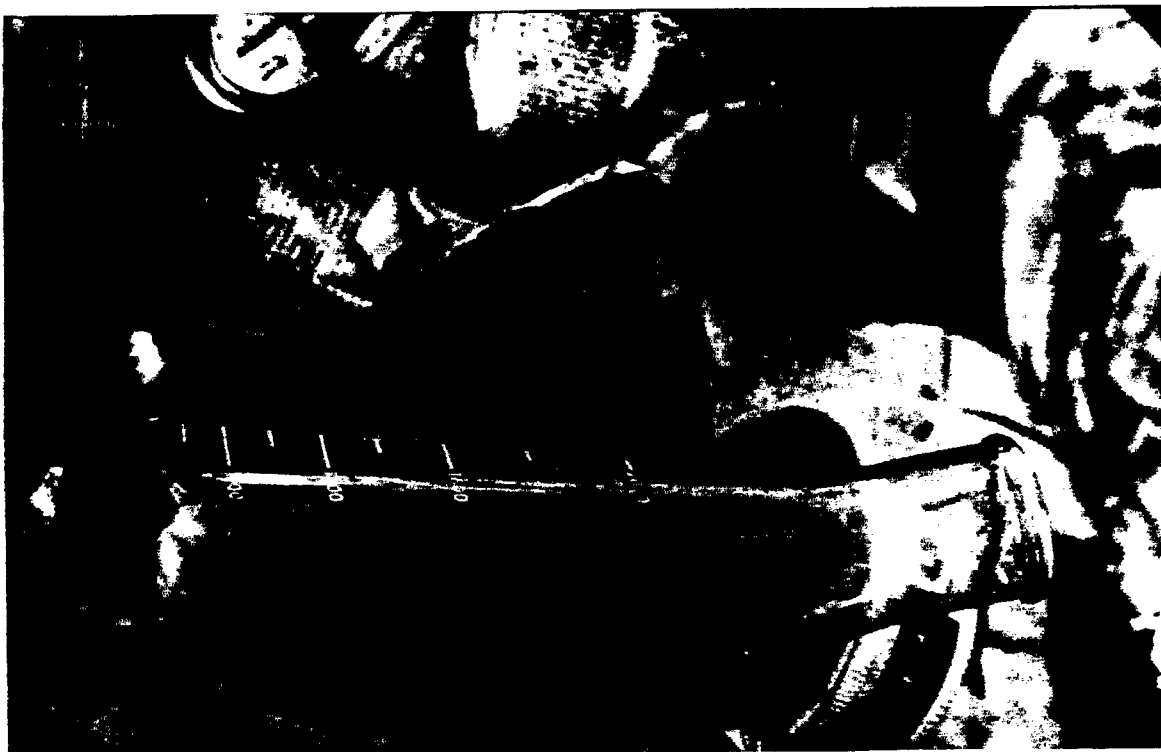


Photo 13: Laboratory flask in dumpster
Date: 10/10/97

Photographer: R. Wise



Photo 14: Chemical containers in dumpster
Date: 10/10/97

Photographer: R. Wise



Photo 9: Dumpster
Date: 10/09/97

Photographer: R. Wise



Photo 10: Drum, lab equipment and debris storage.
Date: 10/10/97

Photographer: R. Wise

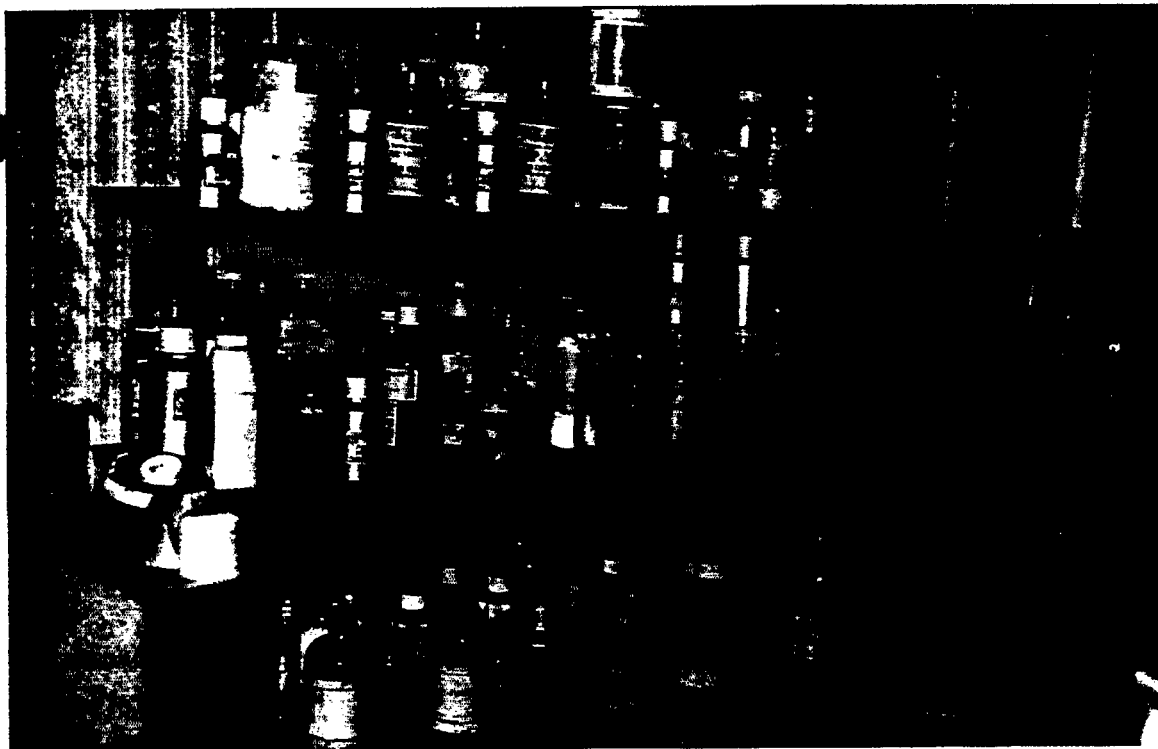


Photo 3: Chemical storage in the laboratory.
Date: 09/17/97

Photographer: R. Wise

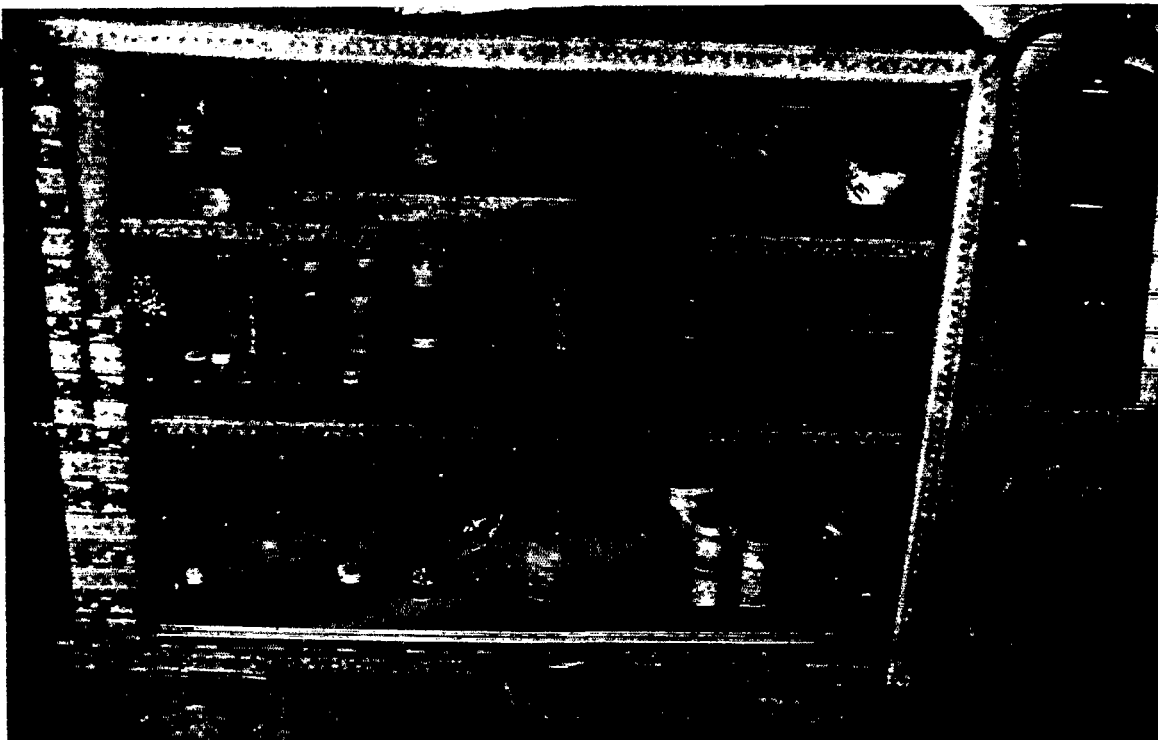


Photo 4: Chemicals stored in alphabetical order in the laboratory
Date: 09/17/97

Photographer: R. Wise